

Vermont Mental Health Performance Indicator Project

DDMHS, Weeks Building, 103 South Main Street, Waterbury, VT 05671-1601 (802-241-2638)

MEMORANDUM

TO: Vermont Mental Health Performance Indicator Project
Advisory Group and Interested Parties

FROM: John Pandiani
Monica Simon

DATE: March 29, 2002

RE: Participation in Standardized Tests by Grade and Gender

The attached graphs and tables were prepared for an interagency meeting of the Vermont Consortium for Successful High School Completion. This meeting focused on data related to truancy and dropout prevention and reduction. This meeting included representatives of various Vermont agencies and the U.S. Office of Juvenile Justice and Delinquency Prevention. The information presented expands on earlier reports on school participation¹.

As in our earlier analyses, school participation is defined by completion of specified tests at the 4th, 8th, and 10th grade levels. Young people who were tested at the age appropriate grade level or were tested at that grade level one year later are considered to have participated for purposes of this analysis. The CMHC population included young people who were served by community mental health Children's Services Programs during each of the years under examination (1998–2000). The total population included all young people in the same age groups.

This analysis used anonymous extracts from the New Standards Reference Exams database maintained by the Vermont Department of Education, and the Monthly Service Report database maintained by the Vermont Department of Developmental and Mental Health Services. Probabilistic Population Estimation² was used to determine the overlap between these two data sets because they do not share unique person identifiers. These estimates are based on a comparison of the distribution of dates of birth in the data sets to the known distribution of dates of birth in the general population.

It is important to note that the school participation rates reported here are different from the test participation rates reported by the Department of Education. This difference occurs because test participation rates are reported as a proportion of all students enrolled in public schools. Our school participation rates are the proportion of all young people in the specified age group (based on age specific total population estimates). This population-based comparison is more appropriate for our focus on young people who received community mental health services since that group will include young people who were not enrolled in school.

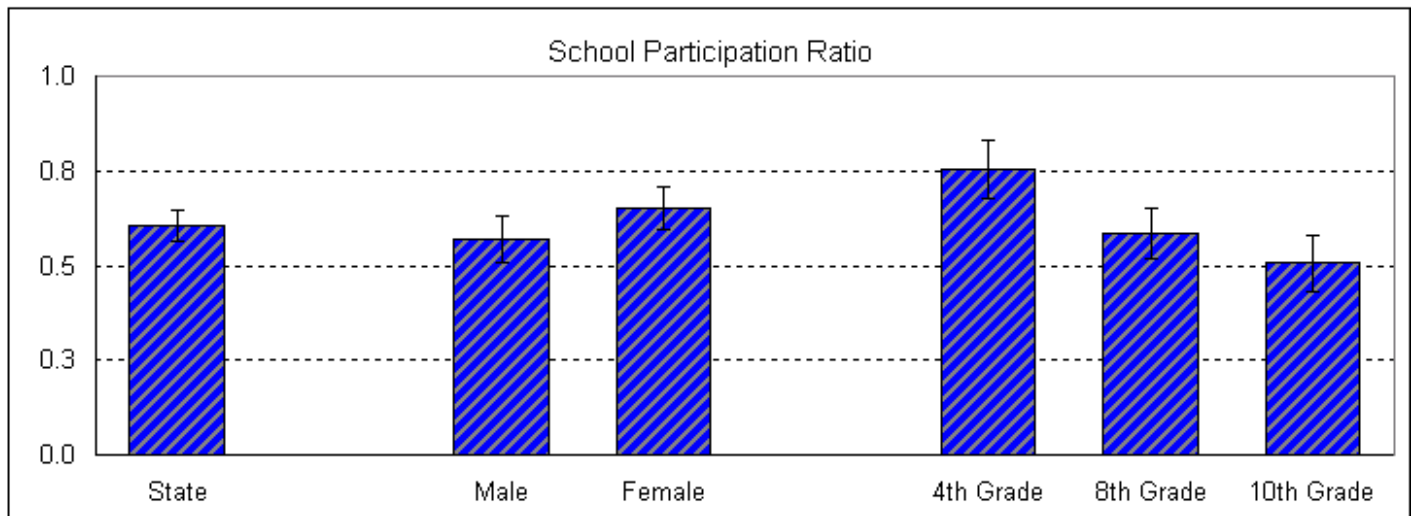
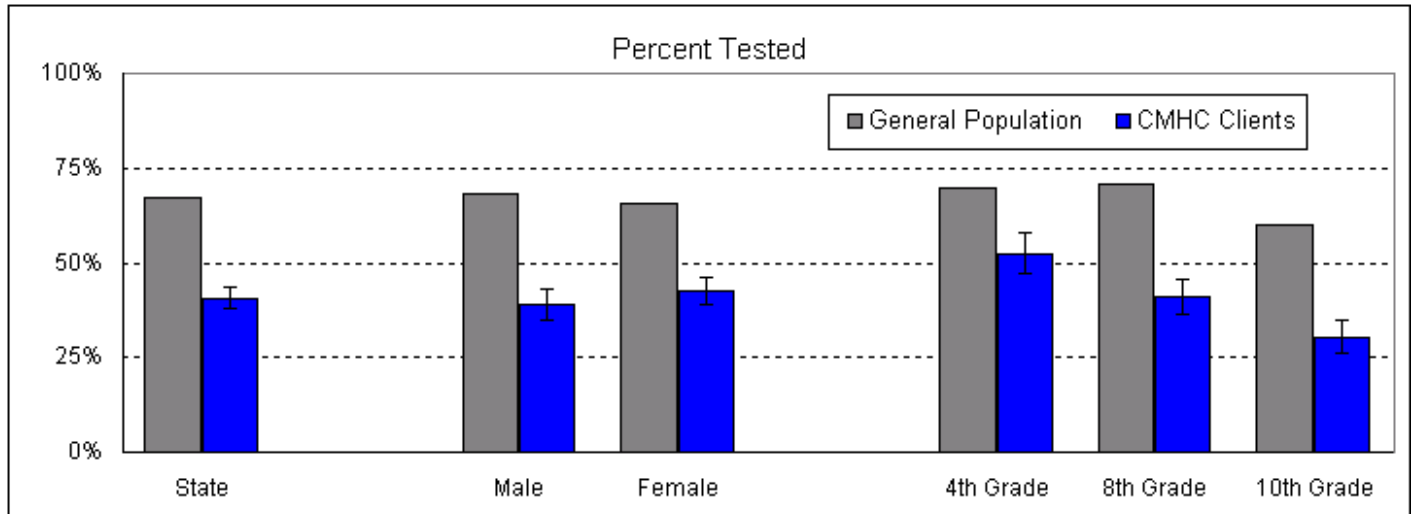
Results indicate that recipients of community mental health services were less likely to take part in Vermont's statewide school testing than Vermont residents in the specified age groups. Statewide, 41% of the service recipients participated in the Mathematics Skills Assessment and 36% participated in the Reading: Basic Understanding Assessment. Sixty-seven percent of all Vermont residents in the specified age groups participated in these tests. Female service recipients participated in school testing at similar rates as male service recipients overall (43% vs. 39% in Math and 40% vs. 34% in Reading). The participation rate for all Vermont youth was 66% for females and 68% for males. Participation rates decreased with increasing grade level for both mental health service recipients and Vermont youth. The decline in participation was greater for service recipients than for all Vermont youth. Participation rates on the Mathematics assessment for service recipients decreased from 52% in 4th grade to 30% in 10th grade. The participation rate for all youth decreased from 70% to 60%. On the Reading assessment, the participation rate for service recipients declined from 47% in 4th grade to 29% in 10th grade. Participation for all youth decreased from 69% to 62%.

We look forward to your comments, questions, and suggestions for further analysis. As always you can reach us by e-mail at edtestresearch@ddmhs.state.Vermont.us or by phone at 802-241-2638.

¹ www.state.Vermont.us/dmh/Data/PIPs/2002/pip020602.pdf;
www.state.Vermont.us/dmh/Data/PIPs/2001/pip111601.pdf;
www.state.Vermont.us/dmh/Data/PIPs/2001/pip092801.pdf

² Banks SM, and Pandiani JA (2001) Probabilistic Population Estimation of the Size and Overlap of Data Sets Based on Date of Birth. *Statistics in Medicine*, Vol. 20: 1421-1430.

School Participation in Statewide Mathematics Skills Assessment
Young People Served by Community Mental Health Centers and Other Young People
1998 - 2001



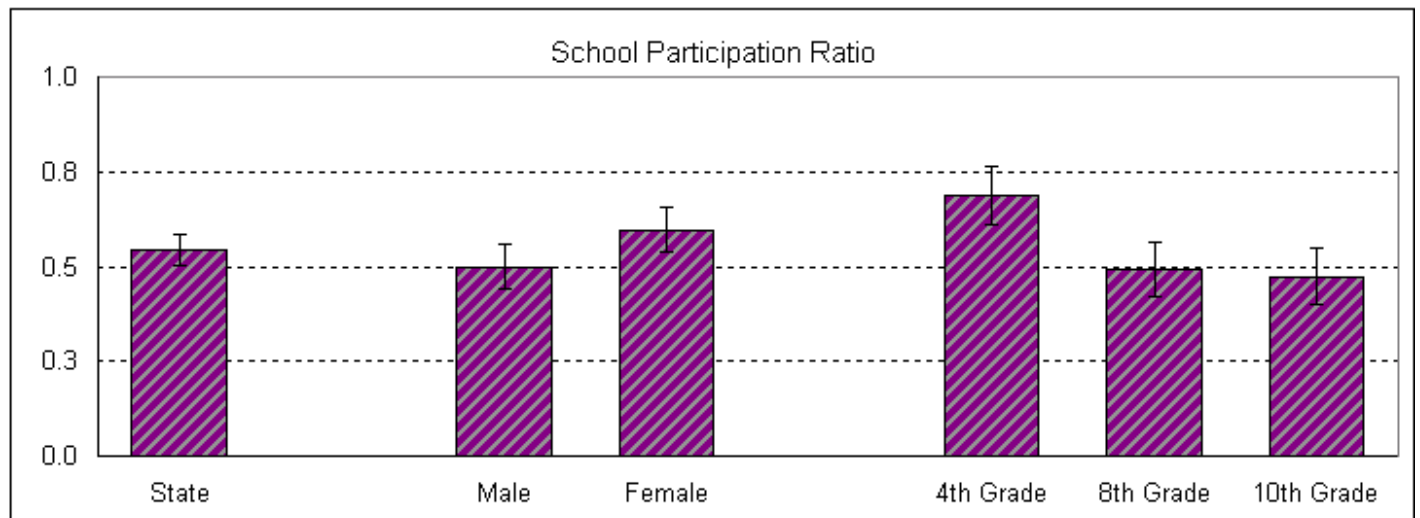
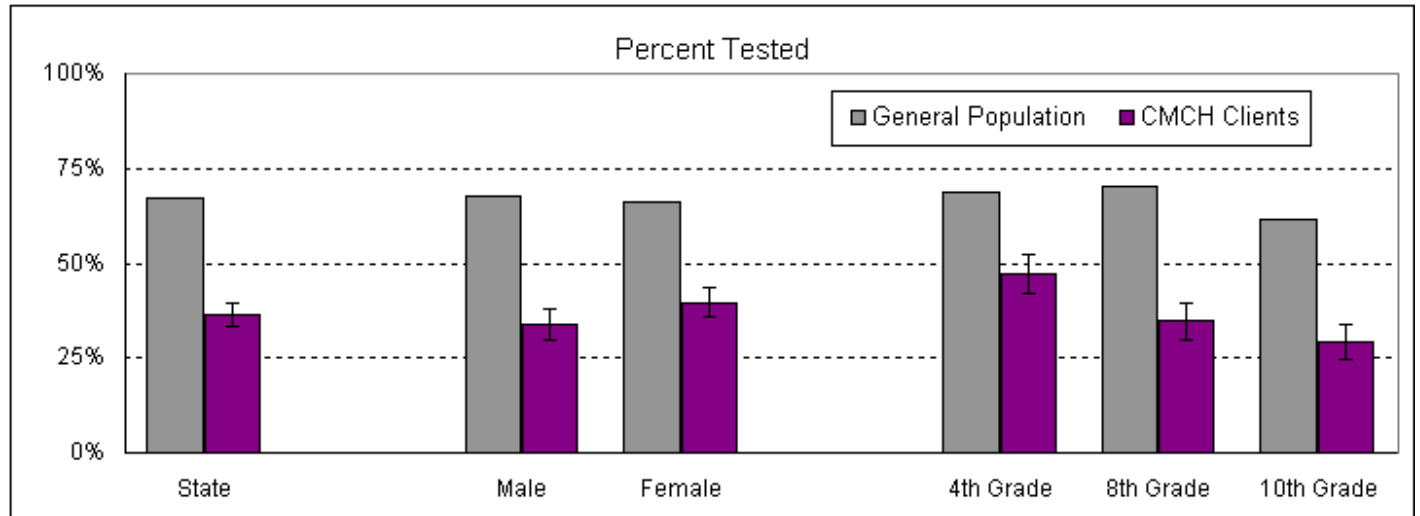
	All Young People			CMHC Clients			School Participation Ratio
	Total Population	Number Tested	Percent Tested	Number Served	Number Tested	Percent Tested	
State	30,980	20,743	67%	2,279 ± 14	926 ± 63	41% ± 3%	0.6 ± 0.04
Male	15,923	10,844	68%	1,260 ± 11	490 ± 52	39% ± 4%	0.6 ± 0.06
Female	15,057	9,899	66%	1,019 ± 9	436 ± 37	43% ± 4%	0.7 ± 0.05
4th Grade	10,736	7,488	70%	664 ± 7	348 ± 36	52% ± 5%	0.8 ± 0.08
8th Grade	10,275	7,249	71%	795 ± 8	327 ± 37	41% ± 5%	0.6 ± 0.07
10th Grade	9,968	6,006	60%	821 ± 9	250 ± 37	30% ± 5%	0.5 ± 0.08

Test Participation includes young people who completed the New Standards Reference Exam. School Participation Ratio is the ratio of the percent of young people tested who were served by a CMHC and the percent of young people tested in the general population.

Analysis is based on Monthly Service Reports provided to DDMHS by the community mental health centers and data provided by The Department of Education.

Because these data sets do not share unique person identifiers, Probabilistic Population Estimation was used to provide unduplicated counts of individuals shared across data sets (with 95% confidence intervals).

School Participation in Statewide Reading: Basic Understanding Assessment **Young People Served by Community Mental Health Centers and Other Young People** **1998 - 2001**



	All Young People			CMHC Clients			School Participation Ratio
	Total Population	Number Tested	Percent Tested	Number Served	Number Tested	Percent Tested	
State	30,980	20,750	67%	2,279 ± 14	829 ± 65	36% ± 3%	0.5 ± 0.04
Male	15,923	10,763	68%	1,260 ± 11	426 ± 52	34% ± 4%	0.5 ± 0.06
Female	15,057	9,987	66%	1,019 ± 9	403 ± 39	40% ± 4%	0.6 ± 0.06
4th Grade	10,736	7,384	69%	664 ± 7	314 ± 35	47% ± 5%	0.7 ± 0.08
8th Grade	10,275	7,226	70%	795 ± 8	276 ± 39	35% ± 5%	0.5 ± 0.07
10th Grade	9,968	6,139	62%	821 ± 9	240 ± 38	29% ± 5%	0.5 ± 0.08

Test Participation includes young people who completed the New Standards Reference Exam. School Participation Ratio is the ratio of the percent of young people tested who were served by a CMHC and the percent of young people tested in the general population.

Analysis is based on Monthly Service Reports provided to DDMHS by the community mental health centers and data provided by The Department of Education.

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